



Illinois Department of Transportation

Memorandum

To: Ken Lang Attn: Terry McCleary
From: Clarita R. Lao By: Thomas R. Sancken
Subject: Pavement Rehabilitation Recommendations
Date: September 16, 2004

FAP 326 (IL 47)
Section (111CS) W & RS-2, I
Grundy County
P-93-058-02
D3 #1514

In your August 11, 2004 memo, a recommendation for "white topping" IL 47 was made to alleviate pavement rutting.

It is our opinion that the traffic conditions, urban nature of this project and costs prohibit the use of a PCC overlay.

The 2003 traffic counts for this section of IL 47 were 24100 vehicles per day. IL 47 is the main north/south roadway through the city of Morris. Detouring that volume of traffic onto the local system is not permissible in the BDE policies. There are six intersections, three of which are westbound one-way streets. As it stands, one lane will be closed during work hours for the widening and curb and gutter construction. All lanes will be opened to traffic during non-work hours. Using a PCC overlay would require keeping the lane closed during non-work hours until the concrete cured.

Because of the high stress nature of this section of IL 47, the use of concrete would be desirable for a complete reconstruction project. Because IL 47 from south of US 6 east to the Illinois River was completely reconstructed in the late 1970's and early 1980's, such work is beyond the scope of this project. This project is only 0.32 mile of a 1.8 mile section that was constructed with 17 1/2" full depth bituminous pavement.

Including the additional costs of the cold milling, \$548,000 would be the cost of the PCC overlay, while \$158,000 is the cost of a 2 1/2" policy resurfacing using a stone matrix asphalt mix design.

BDE Section 54-1.05(a) recommends either PCC or an AC Superpave $N_{design} \geq 90$ for high stress intersections. The pavement design found that it is beneficial to match the existing pavement structure.